

AMENDMENTS TO THE CLAIMS:

Please amend claims 1-9, 13 and 16, 17, 20 and 22 as follows and please add new claims 28 and 29 as follows.

1. (Currently amended) A method for ablating a volume of tissue in a patient comprising the steps of:

(a) inserting a first support shaft through the patient's skin, the first support shaft having an electrically insulated ~~cover on an~~ outer surface of the first support shaft between a first position and a second position and extending to a distal tip of the support shaft;

(b) the first support shaft being inserted with a second support shaft through the patient's skin;

(b)(c) radially extending a first plurality of electrode wires at least three electrode tips in a first electrode set from the first support shaft at the a first position along the first support shaft adjacent the volume of tissue to three respective radial points defining a first plane surrounding the first support shaft, wherein the first position is spaced a distance from a center of the volume of tissue to be ablated, and wherein the second support shaft has a portion at a second position that is axially displaced by a predetermined distance from the first position;

(e) (d) radially extending a second plurality of electrode wires at least three electrode tips in a second electrode set from the axially displaced portion of the second support shaft at the second opposing position adjacent the volume of tissue to three respective radial points defining a second plane surrounding the second support shaft at the second position, wherein the second plane is opposite the first plane by a predetermined separation through the tissue to define a three-dimensional volume of tissue to be ablated and offset spaced axially along from the first plane; and

(d)(e) connecting a power supply between the first plurality and second plurality of electrode wires to induce a in response to bipolar power being applied to the first electrode set and to the second electrode set, causing current flow between them the first plane and the second plane and through the tumor three-dimensional volume of tissue.

2. (Currently amended) The method of claim 1, wherein the first and second plurality of

electrode wires electrode sets are umbrella electrode sets having at least three radially extensible extending electrode wires.

3. (Currently amended) The method of claim 2 wherein the three radially extending electrode tips ~~electrode wires~~ in the first electrode ~~set of electrodes~~ are aligned with the corresponding radially extending electrode tips ~~electrode wires~~ in the second electrode ~~set of~~ electrodes.

4. (Currently amended) The method of claim 3, wherein the ~~oscillating electrical voltage~~ power is applied in has an energy spectrum substantially concentrated in frequencies below 100 kHz.

5. (Currently amended) The method of claim 1, wherein each of the first and second electrode sets ~~of~~ includes electrode wires carrying the electrode tips that are selectively extendable from the support shaft.

6. (Currently amended) The method of claim 5, further comprising the step of monitoring a temperature level at each of the ~~first pluralities of~~ electrode wires.

7. (Currently amended) The method of claim 1, wherein the steps of radially extending the electrode tips in the first and second electrode sets comprises radially extending the wires of the first and second electrode sets to at radial points separated by substantially equivalent equal angles.

8. (Currently amended) The method of claim 1, wherein the first and second electrode sets are provided by tripartite electrodes, and the steps of radially extending the first and second sets of electrode tips ~~sets~~ comprise radially extending the tripartite electrode tips such that each of the tips wires in the tripartite electrode is offset from another of the tips wires in the tripartite electrode by substantially one hundred and twenty degrees, and the tips in a first one of the tripartite electrodes ~~of the first set is~~ are aligned with respective ones of the tips in a second one of the tripartite electrodes in the second electrode set.

9. (Currently amended) The method of claim 6, further comprising the step of controlling a voltage applied between the first and second electrode sets of to maintain the temperature within a predetermined temperature range.

10. (Canceled).

11. (Canceled).

12. (Canceled).

13. (Currently amended) The method of claim 3, wherein the power is applied the ~~oscillating electrical voltage~~ has in an energy spectrum substantially concentrated in frequencies below 10 kHz.

14. (Canceled).

15. (Canceled).

16. (Currently amended) An electrode assembly for ablating tumors in a patient comprising:

(a) ~~a support shaft sized for percutaneous placement in the patient, the support shaft having an outer surface and a distal tip, wherein the support shaft has an electrically insulated cover on the outer surface between a first and second locations, the cover extending to a distal tip of the support shaft;~~

a shaft configuration comprising a first support shaft and a second support shaft, the first support shaft having an electrically insulated outer surface;

(b) ~~first and second wire electrode sets extensible radially from the shaft to an extension radius, the first wire electrode set being positioned adjacent to a tumor volume and offset from the tumor volume and offset axially along the support shaft from the second wire electrode set positionable at a second location opposed from the first location about the tumor volume, the wires of each of the first and second wire electrode sets being positioned at radial points around the support shaft to define a plane, wherein the first electrode set defines a first plane and the~~

second electrode set defines a second plane axially offset from the first plane; and  
a first electrode set having at least three electrode tips radially extensible from the first support shaft at a first position to three respective radial points defining a first plane surrounding the first support shaft;

(c) a second electrode set having at least three electrode tips radially extensible from the second support shaft to three respective radial points defining a second plane surrounding the second support shaft at a second position that is axially displaced along the first support shaft from the first position by a predetermined distance, wherein the second plane is opposite the first plane and is separated from the first plane by a predetermined separation to define a three-dimensional volume of tissue to be ablated between the first plane and the second plane; and

(d) a power supply connected between the first and second electrode sets to induce a current flow between the first and second electrode sets, wherein the first wire electrode set is positionable adjacent to a tumor volume and offset from a center of the tumor volume and the second wire electrode set is positionable at a second location opposed from the first location about the tumor volume such that the current flow is through the tumor volume and substantially surrounding the shaft

wherein when bipolar power is applied to the first electrode set and to the second electrode set, electrical current flows between the first plane and the second plane and through the three-dimensional volume of tissue.

17. (Currently amended) The electrode assembly of claim 16, wherein each of the electrode first and second electrode sets further comprises at least three electrode wires.

18. (Original) The electrode assembly of claim 16, further comprising at least one temperature sensor coupled to each of the first and second electrode sets.

19. (Original) The electrode assembly of claim 17, further comprising a controller connected to the temperature sensor to receive temperature level signals from each of the first

and second electrode sets and to the first and second sets to control the applied ~~voltage~~ power level as a function of the temperature level.

20. (Currently amended) The electrode assembly of claim 19, wherein the electrode wires in each of the first and second electrode sets are electrically isolated, a temperature sensor is coupled to each of the electrode wires ~~in the electrode wire sets~~, and the controller monitors the temperature at each of the electrode wires and individually controls the ~~voltage~~ power applied to the electrode wires.

21. (Original) The electrode assembly of claim 20, wherein the wires in the first electrode set are axially aligned with the electrode wires in the second electrode set.

22. (Currently amended) The electrode assembly of claim 20, wherein each of the electrode wires in ~~the~~ each electrode set are ~~offset~~ spaced at substantially ~~equivalent~~ equal angles around the support shaft.

23-27 (Canceled,)

28. (New) The electrode assembly of claim 16, wherein the first support shaft is tubular, the second support shaft is tubular and the first support shaft is disposed within the second support shaft to provide a concentric tube configuration.

29. (New) The electrode assembly of claim 16, wherein the first support shaft is positioned in a side-by-side configuration with the second support shaft.